| 54<br>ATG<br>M | 108<br>GGG<br>G | 162<br>GCC<br>A | 216<br>CAT<br>H | 270<br>GAG<br>E | 324<br>GAC<br>D | 378<br>CAG<br>Q      |
|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|
| ATG<br>M       | CAG<br>Q        | GCG             | GAC             | CCA             |                 | ACG<br>T             |
| ໑ລລ            | GCC             | CAG<br>Q        | TAC<br>Y        | ACC<br>T        | GCG             | CAC<br>H             |
| 45<br>3 GGA CC | 99<br>GGG<br>G  | 153<br>CAC<br>H | 207<br>CAG<br>Q | 261<br>CTC<br>L |                 | 369<br>GCG<br>A      |
| AG(            | CAC<br>H        | GTG<br>V        | TTC             | CAA<br>Q        | GAC<br>D        | ATC                  |
| AAC            | AGG<br>R        | AGG<br>R        | AAC<br>N        | GAC<br>D        | ATG<br>M        | TGG<br>W             |
| 36<br>GAT      | 90<br>CTG<br>L  | 144<br>GGG<br>G | 198<br>GGG<br>G | 252<br>ITC<br>F | 306<br>CGC<br>R | 360<br>GCG<br>A      |
| CTG            | CTA             | CAG<br>Q        | CAC<br>H        | GAA '           | GAC<br>D        | CGC                  |
| CAG            | $	ext{TTG}$     | 299             | GCC             | AAG<br>K        |                 | $_{\rm L}^{\rm CTT}$ |
| 27<br>CGN      | 81<br>CTG<br>L  | 135<br>CAT<br>H | 189<br>GAC<br>D | 243<br>GCC<br>A | 297<br>ATC<br>I | 351<br>GAG<br>E      |
| GGA            | CTT             | CCT<br>P        | GAT<br>D        | GTG<br>V        | CGG<br>R        | GCC                  |
| AGC            | CTG<br>L        | 3<br>3<br>9     | CAT<br>H        | GAA<br>E        | 999<br>9        | CTG<br>L             |
| 18<br>GAG      | 72<br>CTG<br>L  | 126<br>GCA<br>A | 180<br>CCC<br>P | 234<br>CGG<br>R | 288<br>CTG<br>L | 342<br>TCG<br>S      |
| GTG            | TCA GTT<br>S V  | GAC<br>D        | GCT             | GGA<br>G        | CGT<br>R        | GTG<br>V             |
| GAC            | TCA<br>S        | CCA G           | 3AC<br>D        | CTG             |                 |                      |
| 9 GCG GAC GTG  | 63<br>CCA<br>P  | 117<br>TCC<br>S | 171<br>AGC<br>S | 225<br>TTC<br>F | 279<br>CAG<br>Q | 333<br>GGC<br>G      |
| CGC AGA        | CGA<br>R        | CCA             | CTG<br>L        | GCT<br>A        | AGC             | GAC                  |
| ລອລ            | TGG<br>W        | AAG<br>K        | CCC             | GAG<br>E        | GAA<br>E        | ၁၅၅                  |

### FIGURE 1A

| 432      | 486      | 540      | 594      | 648      | 702      | 756      |
|----------|----------|----------|----------|----------|----------|----------|
| GAC      | TAC      | ATG      | ATG      | ATG      | GGC      | GAG      |
| D        | Y        | M        | M        | M        | G        | E        |
| ACG      | CAC      | AAG      | TCG      | CAC      | GAT      | 9        |
|          | H        | K        | S        | H        | D        | 999      |
| GAC      | 0        | AAA<br>K | GAC      | CCT      | AAA<br>K | CCT      |
| 423      | 477      | 531      | 585      | 639      | 693      |          |
| TAC      | TAT      | TAC      | GGG      | ITC      | AAC      |          |
| Y        | Y        | Y        | G        | F        | N        |          |
| ACG      | ACC      | ACC      | GAT<br>D | GAG<br>E | 4GA      | GCC      |
| GAC      | GCC      | GAG      | CAG      | 3AG      | 3AC<br>) | CA       |
| 414      | 468      | 522      | 576      | 630      | 684      | 738      |
| TGG      | AAC      | GCA      | GAC      | CCC      | CTG      | TAC      |
| W        | N        | A        | D        | P        | L        | Y        |
| GCC      | CGC<br>R | GAT<br>D | GCC      | CAC<br>H | GAC<br>D | CTG      |
| GCG      | CTG      | GAG      | GTG      | CTG      | GAG      | GAT      |
| A        | L        | E        | V        | L        | E        | D        |
| 405      | 459      | 513      | 567      | 621      | 675      | 729      |
| AGC      | GAG      | GTG      | CGG      | TTC      | CTG      | GCG      |
| S        | E        | V        | R        | F        | L        | A        |
|          | GAG<br>E | GAC      | TTC      | GCC<br>A |          | ATC      |
| TCG      | TGG<br>W | CAT<br>H | CGT<br>R | ACA<br>T |          | TAC      |
| 396      | 450      | 504      | 558      | 612      | 666      | 720      |
| GAC      | GGT      | TTT      | CGG      | CTG      | GCT      | GAG      |
| D        | G        | F        | R        | L        | A        | E        |
| CGG      | GTG      | gaa      | GAG      | GAG      | ATT      | GAG      |
| R        | V        | E        | E        | E        | I        | E        |
| ATA      | CGT      | GAA GAA  | GAC      | GAG      | GTG      | GTG      |
| I        | R        | E E      | D        | E        |          | V        |
| 387      | 441      | 495      | 549      |          | 657      | 711      |
| CAC      | GGG      | GGT      | CGG      |          | ATC      | CAG      |
| H        | G        | G        | R        |          | I        | Q        |
| CGG<br>R | GAC<br>D | CCC      | GCT      |          | GAC<br>D | GTC<br>V |
| CAG<br>Q | CGC      | GCG<br>A | CTG      | GCC      | CGG<br>R | TAT      |

#### FIGURE 1B

| 810<br>GAT<br>D | 864<br>CCC<br>P | 918<br>GAC<br>D             | 972<br>3G AAC ATG<br>N M    | 1026<br>CAC GAT<br>H D       | 1080<br>CGG         |
|-----------------|-----------------|-----------------------------|-----------------------------|------------------------------|---------------------|
| CGG<br>R        | CTG<br>L        | AGC<br>S                    | AAC<br>N                    | CAC<br>H                     | GAC                 |
| TTC             | GTG<br>V        | GAG                         | E 3                         | CAC<br>H                     | AAT                 |
| 801<br>GAC<br>D | 855<br>TGG<br>W | 909<br>CAC<br>H             | 963<br>GGT AAT<br>G N       | .017<br>CGG<br>R             |                     |
| CGG<br>R        | S CAC 1<br>H V  | CTG                         | GGT                         | 1017<br>3 ACC CGG<br>T R     | 1071<br>CCG CAC     |
| TTC (           | 9               | CTG                         | 954<br>GAA ATC CTG<br>E I L | 1008<br>GAG GAC CTG<br>E D L | 299                 |
| 792<br>CAG<br>Q | 846<br>GTG<br>V | 900<br>CAC<br>H             | 954<br>ATC<br>I             | .008<br>GAC<br>D             | 1062<br>AGA         |
| CAG<br>Q        | GAG<br>E        | AAC<br>N                    | GAA<br>E                    | 1<br>GAG<br>E                | 1062<br>CTC AGA     |
| AGG<br>R        | AGT<br>S        | GCC                         | GCG                         | 299                          | AGC                 |
| 783<br>GAG<br>E | 837<br>GGG<br>G | 891<br>GAA GCC AAC<br>E A N | 945<br>AAA GCG<br>K A       | 999<br>TAT<br>Y              |                     |
| ACG             | GAT<br>D        | GTG<br>V                    | AGC                         | AAC<br>N                     | 1053<br>TGC CAC     |
| CAG<br>Q        | CTG             | CTG<br>L                    | CTG<br>L                    | ACC<br>T                     | ACC                 |
| 774<br>GTG<br>V | 828<br>CAC<br>H | 882<br>CCC<br>P             | 936<br>CGG<br>R             | 990<br>GCC<br>A              | 1044<br>CGC         |
| TGG<br>W        | 999<br>9        | CAG<br>Q                    | 999<br>9                    | CAG<br>Q                     | 1044<br>GCA CCG CGC |
| GCG             | GAT<br>D        | GAC D                       | GAT GGG<br>D G              | AGT<br>S                     | GCA                 |
| 765<br>CCG<br>P | 819<br>AAG<br>K | 873<br>CAG<br>Q             | 927<br>AAG<br>K             | 981<br>GGC<br>G              | 1035<br>3 TGA       |
| GAG<br>E        | AAC<br>N        | CCT GCC<br>P A              | ACG GAC<br>T D              |                              | 1<br>CTG<br>L       |
| GAG             | $	ext{CTG}$     | CCT                         | ACG                         | TTT GTG<br>F V               | GAG<br>E            |

#### FIGURE 1C

1089 1098 1107 1116 1125 1134 AGG AGG CGC TGT GGT CTG GCC CCC TCC CTG TCC AGG CCC CGC AGG AGG CAG

| 1188<br>GGT CGG                      | 1242<br>CCA GAG                          | 1296<br>ACC CTT                 | 1350<br>TCT GAG         | 1404<br>TGG CCT         | 1458<br>GGA AAA         |        |
|--------------------------------------|--|---------------------------------|-------------------------|-------------------------|-------------------------|--------|
| CTG                                  | GTC                                      | 999                             | AAA                     | ၁၁၅                     | CCG                     |        |
| 1179<br>GAC CCC                      | 1233<br>GTC ATA                          | 1287<br>GAC CCA                 | 1341<br>AGC TCC         | 1395<br>TCT CCT         | 1449<br>CCA GCG         |        |
|                                      | CCT                                      | CCA                             | TCC                     | 222                     |                         |        |
| 1170<br>GCT CTC AGG                  | 1224<br>GGA GGG                          | 1278<br>CCC AGC                 | 1332<br>AAC CCC         | 1386<br>CCC CAG         | 1440<br>CAA TAA AAG     |        |
| TGG                                  | CAG                                      | TCT                             | သသ                      | TGG                     | AGG                     |        |
| 1161<br>TGC CCC                      | 1215<br>CAA CCC CAG                      | 1269<br>ACT GAG                 | 1323<br>AAC CGC         | 1377<br>CTC CCC TGG     | 1431<br>GCC AGG         |        |
| TCC                                  | $\mathcal{CCC}$                          | CTG                             | AAG                     | AAA                     | TCT (                   |        |
| 1152<br>GCA TCC                      | 1206<br>TCA CAC                          | 1260<br>CTA TTT                 | 1314<br>AGC TCT AAG     | 1368<br>AGA CTG         | 1422<br>CTC CTC         |        |
| CAG                                  | CTG                                      | TAC                             | CTC                     | CAT                     | CAC                     |        |
| 1143 1152<br>ATG CAG TCC CAG GCA TCC | 1197 1206<br>CTT CTG TCC CTG TCA CAC CCC | 1251<br>GAT AAG CAA TAC CTA TTT | 1305<br>GGC CCC AAG CTC | 1359<br>CCT CCA CCA CAT | 1413<br>GGC CTG GGA CAC | AAA AA |
| AT(                                  | CTJ                                      | GA1                             | J99                     | CCI                     | 299                     | AAA    |
|                                      |  |                                 |                         |                         |                         |        |

#### FIGURE 1D

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| 54<br>GCG      | 108<br>ATG<br>M   | 162<br>AGC<br>S                 | 216<br>AAG<br>K | 270<br>GCT<br>A | 324<br>CTT<br>L | 378<br>GAT<br>D   |
|----------------|-------------------|---------------------------------|-----------------|-----------------|-----------------|-------------------|
| TGA            | ATC               | $	ext{TTG}$                     | GAC<br>D        | GGT<br>G        | AGG<br>R        | GTG<br>V          |
| 999            | ATT.              | GCC                             | AGT<br>S        | ${ m TTG}$      | GAA<br>E        | ACT               |
| 45<br>GGT      | 99<br>CTA         | 153<br>TTT<br>F                 | 207<br>CTC<br>L | 261<br>TTC<br>F | 315<br>AAG<br>K | 369<br>GTC<br>V   |
| ລລອ            | AAA GAT           | GCC                             | CAG<br>Q        | GCC             | AGC             | TTT<br>F          |
| TGA            | AAA               | ACA (T                          | CCT             | GAT<br>D        | GAG<br>E        | 9 <del>9</del> 99 |
| 36<br>AGC      | 90<br>AGG         | 144<br>TGC<br>C                 | 198<br>GAG<br>E | 252<br>CAT<br>H | 306<br>GAA<br>E | 360<br>GAC<br>D   |
| GTG            | GCT ACG           | CTG<br>L                        | CAT<br>H        | GAC<br>D        | CCA<br>P        | AAG<br>K          |
| CGC            |                   | TCC                             | CAT<br>H        | TAT<br>Y        | ACA<br>T        | GAC<br>D          |
| 27<br>GCG      | 81<br>GGG         | 135<br>CTG<br>L                 |                 | 243<br>GAT<br>D | 297<br>CTG<br>L | 351<br>GGC<br>G   |
| CTT            | GTG               | TGC                             | CGT<br>R        | TTT<br>F        | CAG<br>Q        | GAT<br>D          |
| GTG            | GCT               | ATG<br>M                        | GAC<br>D        | AGT             | GAT<br>D        | ATA<br>I          |
| 18<br>GCG      | 72<br>TGT         | 126<br>CTT<br>L                 | 180<br>AAG<br>K | 234<br>CAG<br>Q | 288<br>TTT<br>F | 342<br>AAA<br>K   |
| TGG            | 63<br>ACG GCA TCC | TYTT<br>F                       | GAA AAG<br>E K  | GCT<br>A        | ACC<br>T        | AGT<br>S          |
| 9<br>TCC GGT I | GCA               | CAG<br>Q                        | gaa<br>E        | GAT             | AAG<br>K        | GTA<br>V          |
| 9<br>TCC       | 63<br>ACG         | 117<br>CGA<br>R                 | 171<br>ACA<br>T | 225<br>AAT<br>N | 279<br>GCA<br>A | 333<br>ATT<br>I   |
| LOS OOO        | )<br>)            | CTG                             | AAA CCC<br>K P  | GTT CAC<br>V H  | GAA<br>E        | AAG<br>K          |
| သသ             | 909               | 117<br>GAC CTG CGA C<br>D L R Q | AAA<br>K        | GTT<br>V        | GAA GAA<br>E E  | GGA<br>G          |

### FIGURE 2A

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| 432      | 486      | 540      | 594      | 648      | 702      | 756      |
|----------|----------|----------|----------|----------|----------|----------|
| GTA      | GAG      | GAT      | GCA      | CAC      | GAT      | ATG      |
| V        | E        | D        | A        | H        | D        | M        |
| GAT      | TGG      | GAT      | ATG      | CTG      | GAA      | GAC      |
| D        | W        | D        | M        | L        |          | D        |
| GAG<br>E | TCC      | CCT      | AAA<br>K | TTC      | ATG<br>M |          |
| 423      | 477      | 531      | 585      | 639      | 693      |          |
| TAC      | GTT      | GAT      | TTT      | GCT      | ACA      |          |
| Y        | V        | D        | F        | A        | T        |          |
| ATT<br>I | CTC      |          | AGG<br>R |          | GAA<br>E | TAT      |
| TGG<br>W | 199      | GAT<br>D | CGG<br>R |          |          | GAG      |
| 414      | 468      | 522      | 576      | 630      | 684      | 738      |
| CGC      | GAC      | GAT      | GAG      | GAG      | GTA      | GAA      |
| R        | D        | D        | E        | E        | V        | E        |
| AAG<br>K | GAG<br>E | TTA<br>L | GAT<br>D | GAG      | 3TA<br>V |          |
| CAA      | AAT      | GTT      | AGA      | AAG      | ATA      | GAT      |
| Q        | N        | V        | R        | K        | I        |          |
| 405      | 459      | 513      | 567      | 621      | 675      | 729      |
| GCA      | CTC      | TAC      | GTT      | ACC      | GAT      | ATT      |
| A        | L        | Y        | V        | T        | D        | I        |
| TTT<br>F | GAC<br>D |          | ATG<br>M | GCC      | AAA<br>K | TTC      |
| AAA<br>K | CAT<br>H | TAC<br>Y | ATG<br>M | ATT<br>I |          | GGT      |
| 396      | 450      | 504      | 558      | 612      | 666      | 720      |
| ATT      | GGG      | ACC      | CAG      | CTC      | TAC      | GAT      |
| I        | G        | T        | Q        | L        | Y        | D        |
| TGG      | AAG      | GCC      | AAA      | GAC      | , GAC    | GCT      |
| W        | K        | A        | K        | D        | D        | A        |
| GAC      | TGG<br>W | AAT<br>N | TAT Z    | GGA<br>G | TAT<br>Y | AAT<br>N |
|          | 441      | 495      | 549      | 603      | 657      | 711      |
|          | CAG      | AAA      | AAC      | GAT      | 3AG      | AAG      |
|          | Q        | K        | N        | D        | E        | K        |
| CTC      | CGA      | TAT      | T'T'T    | AAG      | GAG      | GAT      |
|          | R        | Y        | F        | K        | E        | D        |
| GAG      | GAG      | GAG<br>E | GGA<br>G | GAC<br>D | CCT<br>P | ATA<br>I |

FIGURE 2B

| 810<br>GAG<br>E                         | 864<br>GAG<br>E               | .18<br>.GG                          | 972<br>GAG<br>E   | 1026<br>; GAG<br>E          | 80<br>AA   |
|---|-------------------------------|-------------------------------------|---|-----------------------------|--|
| CGA C                                   | AA G                          | 909<br>G GCA GAA GCC AGG<br>A E A R | AG G  | 10<br>3G G                  | 1080<br>CCT CAA  |
| U JK.                                   | O EI                          | A<br>G<br>A                         | <u>о</u> ы  | დ დ                         | )<br>-   |
| GAG<br>E                                | AA(<br>K                      | GA/<br>E                            | AAC<br>K  | TTT<br>F                    | TTT  |
| 801<br>ACA<br>T                         | 855<br>3 GAC AAG GAA<br>D K E | 909<br>GCA<br>A                     | 963<br>ACC<br>T   | 017<br>GAT<br>D             | 071<br>TCA   |
| AAG<br>K                                | ATG<br>M                      | GAG<br>E                            | ${\rm CTT} \\ {\rm L}$  | 1<br>ACA<br>I               | 1<br>3CC '   |
| GTA                                     | AAG<br>K                      | GCA                                 | AAG<br>K  | 2CC 1                       | SAA (  |
| 792 8<br>TGG GTA AAG A<br>W V K T       | 846<br>GGG<br>G               | 900<br>CAT GCA GAG (<br>H A E A     | 954<br>3GC  | 308<br>CAG (                | )62<br>3AG (   |
| 783<br>ACT GAT GAG CCA GAA<br>T D E P E | GAT<br>D                      | 891<br>1 GAC TAT GAT C<br>D Y D H   | 36 945 954 963 97<br>CA GAC CAA AAC AAG GAT GGC AAG CTT ACC AAG GAG GA<br>D Q N K D G K L T K E E | 1(<br>AGC (                 | 1053 1062 1071<br>TTC TGA GCT ACG GAG GAA CCC TCA<br>F |
| CCA<br>P                                | CGT<br>R                      | TAT<br>Y                            | AAG   | )<br>09 9                   | 3CT /  |
| 783<br>GAG<br>E                         | 837<br>AAC<br>N               | 891<br>GAC<br>D                     | 945<br>AAC<br>N   | 999<br>GTT (                | 053<br>IGA (   |
| GAT<br>D                                |                               | TCA                                 | CAA   | TTT (                       | 1.<br>F  |
| ACT                                     | GAT<br>D                      | CCC                                 | GAC<br>D  | TTA<br>L                    | GAG '  |
| 774<br>AAT<br>N                         | 828<br>CGG<br>R               | 882<br>CTT<br>L                     | $oldsymbol{a}$  | 990<br>GAC<br>D             | 044<br>GAT<br>D  |
| GAT GGG D                               | G ATTT                        | ATC<br>I                            | TAT GAA<br>Y E  | 990<br>AAG TAT GAC<br>K Y D | 1044<br>CGG CAT GAT (<br>R H D                         |
| GAT                                     | GAG<br>E                      | TGG                                 | TAT<br>Y  | AAG<br>K                    | CGG  |
| 765<br>CAT<br>H                         | 819<br>GTT<br>V               | 873<br>GAC<br>D                     | 927<br>GTC<br>V   | 981<br>GAC<br>D             | 035<br>GTA<br>V  |
| AGC<br>S                                | TTT                           | AAA<br>K                            | CTG<br>L  | GTT<br>V                    | 1<br>TTA<br>L  |
| TAC<br>Y                                | CAG<br>Q                      | ACC<br>T                            | CAC<br>H  | ATC<br>I                    | 1035<br>GCC TTA GTA<br>A L V                           |

### FIGURE 2C

1089 1098 1107 1116 1125 1134 AAG TAA TTT ATT TTT ACA GCT TCT GGT TTC ACA TGA AAT TGT TTG CGC TAC TGA

| 1188<br>ATC CCG   | 1215 1224 1233 1242<br>GAG GGA CTG GAG GGA AGC CGT GCT TCT GAG GAA | 1296<br>TAT GTA TTA<br>1350<br>TAT GAA GGA   | 1404<br>TTC TCA  | 1458<br>TGA GAT                      | 1512<br>CAA T'T'T  | 1566<br>TTC ATA  | 1620<br>GAA CCT   |
|---|--|--|--|--------------------------------------|--|--|---|
| ACC   | TCT  | TAT  | TCT  | ၁၁၅                                  | CCA  | CAT  | ACT   |
| 1179<br>ATG AAA   | 1233<br>CGT GCT  | 1269 1296<br>TGT TTG TAG ATT TAC ACT TTG TAT TAT GTA TTA<br>1323 1332 1341 1350<br>ATT TTT CTC TGG TTG GGA GTA TGA TAT GAA GGA | 1395<br>CTT TAC  | 1449<br>TTG TAA GCC TGA GAT          | 1485 1494 1503 1512<br>AGA GAG GAA AGA AAA ATA TAT GCT CCA CAA TTT | 1557<br>GTC CAA  | 1611<br>CCA GCA   |
| GTA   | AGC  | ACT  | GCT  | ATT                                  | ATA  | AAA  | GGT   |
| 1170<br>AAA GGC   | 1224<br>3AG GGA  | 1278<br>NTT TAC<br>1332<br>'GG TTG   | 1386<br>.CA TTA  | 1440<br>TAA CTA ATT                  | 1494<br>AA AAA   | 1548<br>GT CAA   | 1602<br>CT ATA  |
| TGA A   | CTG (  | TAG A  | CAA A  | ACT                                  | AGA A  | ECC T  | GTT G   |
| 1161<br>AAG ACA   | 1215<br>GAG GGA  | 1269<br>TYG TGT TYG<br>1323<br>TGT ATY TYY   | 1377<br>TGT AGA  | 1431<br>ATT CTC                      | 1485<br>3AG GAA  | 1539<br>AGT CTT  | 1593<br>CAT TCA   |
| TTT   | TCT  | TTG  | ACA  | ATA                                  | AGA (  | CTT 1  | TTA (   |
| 1152 1161 1170 1179 1188<br>TAC AAA CTT TTT AAG ACA TGA AAA GGC GTA ATG AAA ACC ATC CCG | 1197 1206<br>TCC CCA TTC CTC CTC TCT                               | 1260<br>GTA CAC<br>1314<br>TAT TTT   | 1359 1368 1377 1386<br>TCA AGA TCC TCA ACT CAC ACA TGT AGA CAA ACA TTA GCT | 1422 1431<br>ATG ATT TTA ATA ATT CTC | 1476<br>TYC AGG  | 1530 1539 1548 1557<br>AGA ACA CTT AGT CTT GCC TGT CAA AAA GTC CAA CAT | 1584 1593 1602 1611 1620<br>CAC ATA TTA CAT TCA GTT GCT ATA GGT CCA GCA ACT GAA CCT |
| TAC   | CTC  | TTA  | TCA  | ATG                                  | ATG  | GAG  |   |
| 1143<br>GAC TGT TAC   | 1197<br>CCA TTC  | 1251<br>CAA CTC TAA TTA<br>1305<br>ACA TGG CGT GTT   | 1359<br>AGA TCC  | 1413<br>ACC CCT TTT                  | 1467<br>CAA TAA GAA  | 1521<br>TTT AGA  | 1575<br>GGT AGT AGG GGC   |
| GAC   | TCC  | CAA  | TCA  | ACC (                                | CAA  | ATA  | GGT 1   |

### FIGURE 2D

| 1674<br>CCA AAT                      | 1728<br>TCA AGC                                       | 1782<br>CAA GTA GTG | 1836<br>AGG AAA                                   | 1890<br>TTG AAA                                   | 1944<br>ATC CGG  | 1998<br>AAT TAA                      | 2052<br>AAT GGT                                   | 2106<br>TTT GGA                      |
|--------------------------------------|---|---------------------|---|---|--|--------------------------------------|---|--------------------------------------|
| 299                                  | TTG   |                     | TAA   | CTG   | သသ   | TAC                                  | AGA   | CTA                                  |
| 1656 1665<br>GCT CTA GGA AAG CTT GGC | 1719<br>; CTA ATT                                     | 1773<br>AAA ATC AAT | 1818 1827 1836<br>AAA CAG CTG GAA AAC TAA AGG AAA | 1872 1881 1890<br>TTT CTG GGT GTG CAT CTG TTG AAA | 1917 1926 1935 1944<br>CCT TTT GAA ATC ACT GTA AAT GCC CCC ATC CGG | 1989<br>TTT CAC TAC                  | 2043<br>AAC GAA                                   | 2097<br>AAA AAA AGA CTA TTT GGA      |
| ď99                                  | TGG   |                     | CTG   | GGT   | GTA  | TGG                                  | TTT   | AAA                                  |
| 1656<br>GCT CTA                      | 1710<br>GAC TGT                                       | 1764<br>GTC TTG     | 1818<br>AAA CAG                                   | 1872<br>TTT CTG                                   | 1926<br>ATC ACT  | 1980<br>TAA TCT                      | 2034<br>AGT GCC                                   | 2088<br>GAG ATT                      |
| TTT                                  | ACT   | AGT                 | TAG   | TTT   | GAA  | AAT                                  | GAA   | CCT                                  |
| 1647<br>AAA GAT CCC TTT              | 1692 1701 1710<br>TYT TCC CCC TGT AGG ACT GAC TGT TGG | 1755<br>AGG GCC AGT | 1809<br>TAT AGA TAG                               | 1863<br>GCA TAC ATT TTT                           | 1917<br>CCT TTT  | 1971 1980<br>CCA AGG AAT TAA TCT TGG | 2016 2025 2034<br>TCC AAT CAT GTC ATT GAA AGT GCC | 2079 2088<br>TTA AGA AAC CCT GAG ATT |
|                                      | သသ  | GTT                 | AGC   |   | TTG  | GTG                                  | CAT   | TTA                                  |
| 1638<br>GCA AGG                      | 1692<br>TTT TCC                                       | 1746<br>GGA AGA GTT | 1800<br>TTG CAG                                   | 1854<br>TYC GGG                                   | 1908<br>AAT TAT TTG  | 1962<br>CCA GGT GTG                  | 2016<br>TCC AAT                                   | 2070<br>ATT CTC                      |
| TGG                                  | TCT   | GTG                 | TCT   | GTT   |  | TTC                                  | CTT   |                                      |
| 1629<br>GCC ATT ACC TGG              | 1683<br>TGA TTT TCT TCT                               | 1737<br>ACA GCT GTG | 1791<br>AAT GTG ATC                               | 1845<br>ACA AAT                                   | 1899<br>TCA AGA CTT  | 1953<br>CTC TTC                      | 2007<br>AAT TCA CTC                               | 2061<br>CAC TGA ATG GGA              |
| ၁၁၅                                  | TGA   | ACA                 | AAT   | AAT   | TGC  | TTC                                  | AAT   | CAC                                  |

#### FIGURE 2E

| 2214<br>TTG GTT | 2268<br>AAT TTA         | 2322<br>TTT CTG  | 2376<br>GAG AGG   | 2430<br>CAC ACC   | 2484<br>3AA ACG   | 2538<br>AAA GAG   | 2592<br>3CA ACA  |
|-----------------|-------------------------|--|---|---|---|---|--|
| AGT             | CTG                     | CTT  | ACA   | CAT   |   |   | TAT (  |
| 2205<br>GTT ATG | 2259<br>ATG CTG         | 2313<br>CCA GGC  | 2367<br>GGA CÇT   | 2421<br>TTG ACC   |   |   | 2583<br>ATA TTT  |
| TTA             | CAC                     | CTA  | AGA   |   | AAA   | AGA (   | 7 000  |
|                 | 2250<br>AAA AAC         | 2304<br>CAC TTA  | 2358<br>AAG ATC   | 2412<br>TTC CTG   | 2466<br>CCA AAA   | 2520<br>FAT CAA   | 2574 2593 2592<br>ACT TTA CCC ATA TTT TAT GCA ACA  |
| TTA             | TCC                     | AAC  |   | CCT   | CTG   | CCT   | TCC 7  |
| 2187<br>GTT AAA | _                       |  |   | 2403<br>GGC TTA   | 2457<br>TCC CCG   | 2511<br>TTC AGT   | 2565<br>CCC AAC  |
| ATA             | 999                     |  |   | CAT   | CTC   |   | GTT  |
|                 | 2232<br>TCT TGT         | 2286<br>ATA CCT  | 2340<br>AGC TTG   | 2394<br>GAG GAC   | 2448<br>CTT TCC   | 2502<br>CAA CAG   | 2556<br>CCC TTT  |
| TTT             | TTA                     | CTC  | GAG   |   |   |   |  |
| 2169<br>TTT CTC | 2223<br>GTG TTC         | 2277<br>GGG ATC  | 2331<br>CCA CTG   | 2385<br>CTT TGG   | 2439<br>TTT CCT   |   | 2547<br>CTA AAG AAA CCA  |
| 0               | GCA                     | CCA  | TGT   | GCT   | CCA   | ${ m TTT}$  | CTA  |
|                 | 2205<br>GTT ATG AGT TTG | 2178 2187 2196 2205  TGG ACA ATA GTT AAA TTA GCA GTA TTA GTT ATG AGT TTG  . 2232 2241 2250 2259  TCT TGT GGG CTG ATT TCC AAA AAC CAC ATG CTG CTG AAT | 2178 2187 2196 2205 TTT TGG ACA ATA GTT AAA TTA GCA GTA TTA GTT ATG AGT TTG 2232 2241 2250 2259 TTA TCT TGT GGG CTG ATT TCC AAA AAC CAC ATG CTG CTG AAT 2286 2295 2304 2313 CTC ATA CCT CAC AAT GCA AAC CAC TTA CTA CCA GGC CTT TTT | 2178         2187         2196         2205           TGG ACA         ATA         GTT         AAA         TTA         GCA         GTT         ATG         AGT         TTG           12332         2241         2250         2250         2259         2259         2259         ATG         CTG         ATG         CTG         ATG         ATG         CTG         ATG         ATG         CTG         ATG         CTG         ATG         ATG         CTG         ATG         ATG         CTG         ATG         CTG         ATG         ATG         CTG         ATG         ATG         CTG         ATG         ATG | TTT TGG ACA ATA GTT AAA TTA GCA GTA TTA GTT ATG AGT TTG  2232 TTA TCT TGT GGG CTG ATT TCC AAA AAC CAC ATG CTG ATT  2286 CTC ATA CCT CAC AAT GCA AAC CAC TTA CTA CCA GGC CTT TTT  2340 GAG AGC TTG AAT GCA AAG ATC AGA GGA CCT TTT  2340  2340 TTT GAG GAC CAT GGC TTA CCT TTC CTG CCT TTG ACC CAT CAC | 2178         2187         2196         2205           TTT         TGG ACA         ATA         TTA         GCA GTA         TTA         GTT         ATG         AGT         TTG           TTA         TCT         ATA         CTG         AAA         CAC         ATA         CTG         AAT         ATG           CTC         ATA         CCT         AAA         CAC         ATA         CAC         ATA         CTG         AAT           CTC         ATA         CCT         CAC         ATA         CCA         ATC         CAC         ATT           GAG         TTG         AAT         CAC         TTG         CAC         ATG         CAC         ATT           GAG         TCG         TCA         AAG         ATC         AAG         ACA         ACA <td>  TTT TGG ACA ATA GTT AAA TTA GCA GTA TTA GTT ATG AGT TTG AAA TTA GTT AAA TTA GCA GTA TTA GTT ATG AGT TTG AAA TTA GTT ATG ATT TTG AAA AC CTG ATT TCC AAA AAC CAC TTA CTA CTA CTG CTG AAT CTC ATA CCT CAC AAT GCA AAC CAC TTA CTA CCA GGC CTT TTT CAG GAC TTG ACC TCA CAG CCT TTG ACC CAT CAG CAC TTG ACC CTT ACC CAT CAG CAC TTG ACC CTT TC CTG CTG ATG CAC CAT CAG GAC CTT TC CTG CTT TTG ACC CAT CAG GAA AAA AAA AAA AAA AAA AAA AAA AAA</td> | TTT TGG ACA ATA GTT AAA TTA GCA GTA TTA GTT ATG AGT TTG AAA TTA GTT AAA TTA GCA GTA TTA GTT ATG AGT TTG AAA TTA GTT ATG ATT TTG AAA AC CTG ATT TCC AAA AAC CAC TTA CTA CTA CTG CTG AAT CTC ATA CCT CAC AAT GCA AAC CAC TTA CTA CCA GGC CTT TTT CAG GAC TTG ACC TCA CAG CCT TTG ACC CAT CAG CAC TTG ACC CTT ACC CAT CAG CAC TTG ACC CTT TC CTG CTG ATG CAC CAT CAG GAC CTT TC CTG CTT TTG ACC CAT CAG GAA AAA AAA AAA AAA AAA AAA AAA AAA |

#### FIGURE 2F

2611 2610 2619 2628 2637 2646 CAA ACA CTG TCC TTT TGG GTC CCT TTC TTA CAG ATG GGA CCT CTT GAG GAA GGA

2655 ATT ATC GTA TTC FIGURE 2G

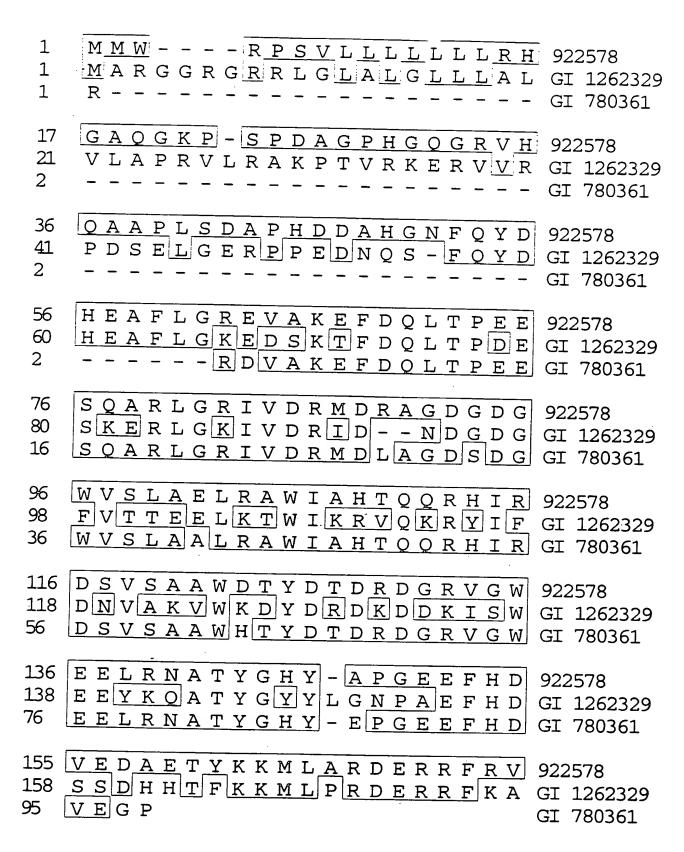
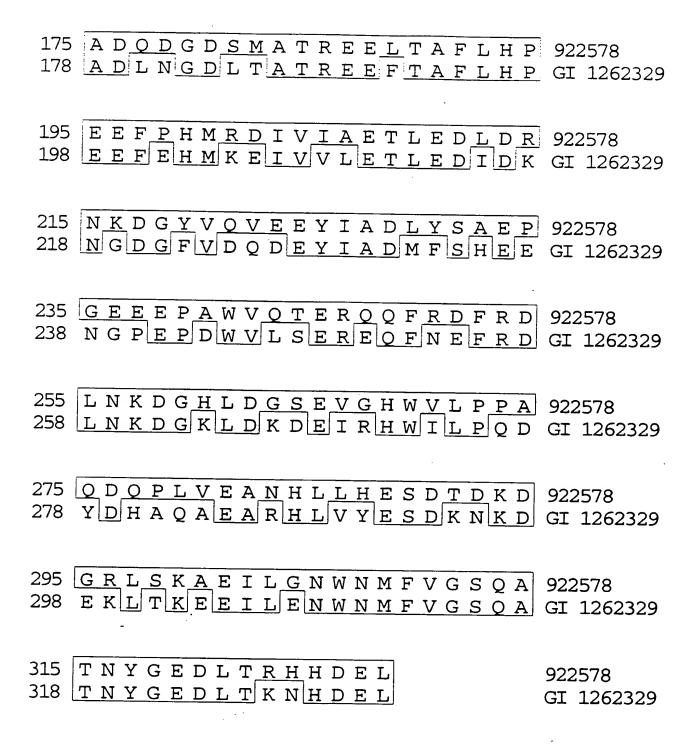
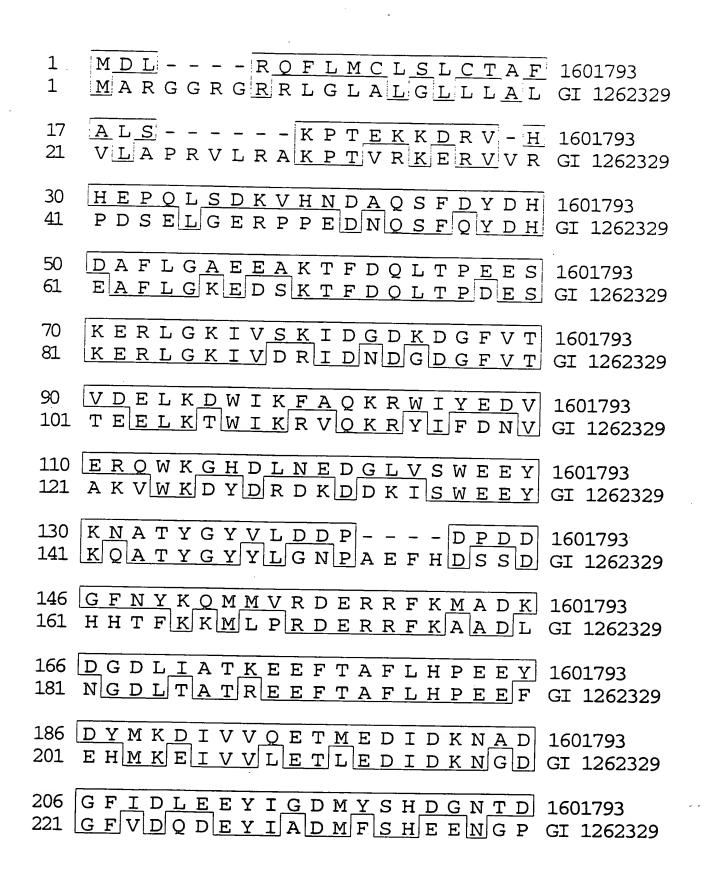
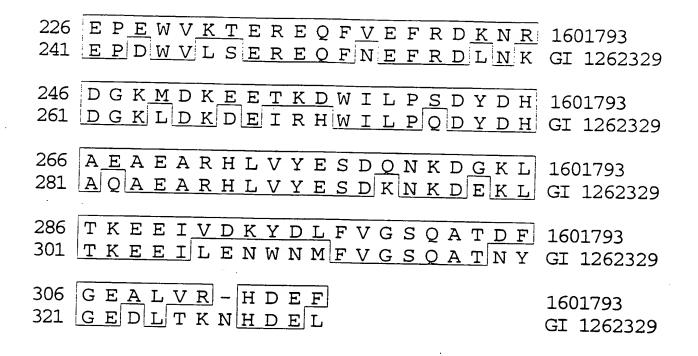


FIGURE 3A



#### FIGURE 3B





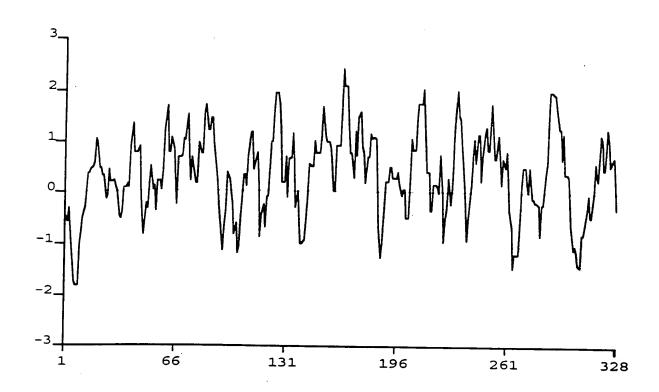


FIGURE 5A

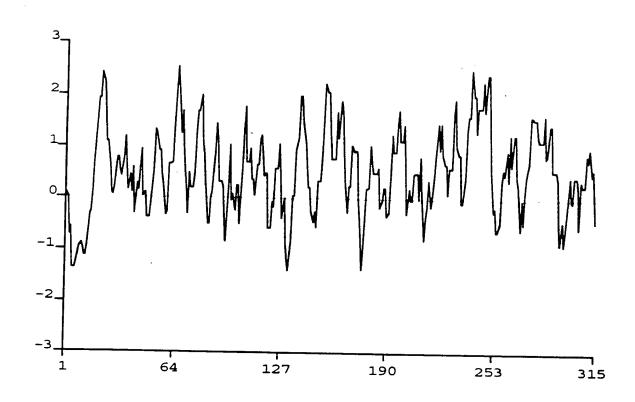


FIGURE 5B

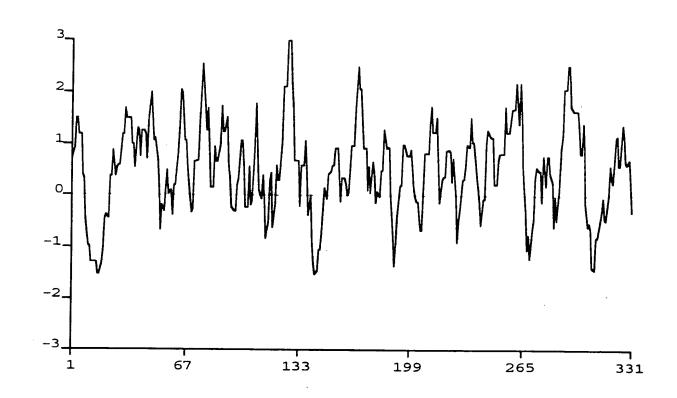


FIGURE 5C